

What is claimed is:

1 1. A partial discharge-resistant wire enamel composition
2 wherein at least one fine particle sol selected from the group of
3 metal oxide fine particle sol and silicon oxide fine particle sol
4 is dispersed, said wire enamel composition comprising 100 parts
5 by weight of wire enamel resin and 3 to 100 parts by weight of at
6 least one fine particle selected from a metal oxide fine particle
7 and a silicon oxide fine particle.

1 2. The partial discharge-resistant wire enamel composition
2 according to Claim 1 wherein the metal oxide fine particle sol and
3 silicon oxide fine particle sol is transparent or opalescent colloid
4 liquid containing a metal oxide fine particle or silicon oxide fine
5 particle having an average particle size of 100 nm (100×10^{-9} mm)
6 or less in a dispersing medium having excellent compatibility with
7 a wire enamel composition.

1 3. A partial discharge-resistant magnet wire obtained by coating
2 and baking directly or through other coating layer on a conductor,
3 a wire enamel composition wherein at least one fine partial sol
4 selected from the group of metal oxide fine particle sol and silicon
5 oxide fine particle sol is dispersed, said wire enamel composition
6 comprising 100 parts by weight of wire enamel resin and 3 to 100
7 parts by weight of at least one fine particle selected from the
8 group of a metal oxide fine particle and a silicon oxide fine particle.

1 4. The partial discharge-resistant magnet wire according to Claim
2 3 wherein the metal oxide fine particle sol and silicon oxide fine
3 particle sol is transparent or opalescent colloid liquid containing
4 a metal oxide fine particle or silicon oxide fine particle having

5 an average particle size of 100 nm ($100 \times 10^{-9}\text{ mm}$) or less in a dispersing
6 medium having excellent compatibility with a wire enamel
7 composition.

1 5. A partial discharge-resistant enameled wire obtained by
2 providing a lubricant coating layer on the outer circumference of
3 a coating layer produced by coating and baking directly or through
4 other coating layer on a conductor a wire enamel composition wherein
5 at least one fine particle sol selected from the group of metal
6 oxide fine particle sol and silicon oxide fine particle sol is
7 dispersed.